Patent [19]

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[54] **AIR CLEANER**

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[57] **ABSTRACT**

PROBLEM TO BE SOLVED: To obtain a superb deodorizing efficiency without increasing a noise level by providing a second photoreflective plate near a lamp which emits ultraviolet rays to a deodorizing filter carrying a photocatalyst in such a manner that the deodorizing filter side of the lamp is covered and a first photoreflective plate which covers almost an entire inner wall extending from the deodorizing filter to an air blower fan.

SOLUTION: Ultraviolet rays emitted by a lamp to a deodorizing filter 3 side proceed as shown by an arrow (n), reaching a photocatalytic face to produce a reactive group and thus contribute to the deodorizing effect. The ultraviolet rays to be emitted by the lamp to a second photoreflective plate 12, installed near the lamp, which covers a counter-deodorizing filter side, show its reflection as shown by an arrow (p), reaching the photocatalytic face. This route (p) is exceedingly short so that the reflective intensity of the ultraviolet rays is high and therefore, the outstanding deodorizing effect is obtained. The reflective intensity of the ultraviolet rays to the photocatalytic face is increased by the second photoreflective plate 12. Consequently, a casing 8 for an air passage with a first photoreflective plate 11 provided on the surface and an unwoven fabric constituting the deodorizing filter 3 can be widely spaced from each other without any problem. Thus it is possible to reduce the air passage resistance and lower the noise level.

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